# Attachment A

#### **Format of Data**

All data should be submitted in a .csv (comma-delimited) format. The sheets in the workbook provide a template for how the tables should be designed. The required format for the entries in each column/field is indicated in the instructions for each sheet.

All entries in Text fields must be in quotation marks (e.g. "T-Mobile", "Sprint").

Column entries in **bold red** indicate that the party shall enter only one of the possible entries listed for that column. No other entries shall be entered. Data for all of the tables shall be submitted on a periodic basis as specified in the instructions in individual tables.

In a separate written response, explain in detail the applicable methodology and assumptions used to derive all projections in response to this data request.

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data. Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Col	lumn	A:

Date
Description:

The month for which the data is being collected as of the second week of the month.

Format of Field: Text - YYYY MM

Possible Entries: 20

2015\_12 2016\_12

2017\_12

2018\_12 2019 12

2020 12

2021 12

2022\_12

2023\_12 2024 12

Column B:

Operator

Description: The operator of the site to which this data record applies. In cases where a Sprint site

and T-Mobile site share the same tower or other supporting structure, each site shall be entered separately.

Format of Field: Text

Possible Entries: "S

"Sprint"
"T-Mobile"

"New T-Mobile"

Column C:

Site ID

Description: A unique site ID for the site to which this data record applies.

Format of Field: Tex

Example Entries: "AL0001", "VA0128", etc.

Column D:

Number of Sectors

Description: This field provides an integer representing the number of sectors this site utilizes.

Format of Field: Number - Integer Example Entries: 1, 2, 3, etc.

Column E:

Latitude

Description: This field is the latitude of the site in decimal form to at least seven significant digits. Coordinates must be in the WGS84 geographic coordinate system.

Format of Field: Number - At least 6 decimal places

Example Entries: 40.7127837, etc.

Column F:

Longitude

Description: This field is the longitude of the site in decimal form to at least seven significant digits. Coordinates must be in the WGS84 geographic coordinate system.

Format of Field: Number - At least 6 decimal places

Example Entries: -74.0059413, etc.

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data.

Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column G:

County FIPS Description:

This field is the 2010 five-digit FIPS code of the county in which the site is located.

Please provide data for counties and county-equivalents in the United States and Commonwealth of Puerto Rico.

Format of Field: Text

Example Entries: "01001", "51059", etc.

Column H:

CMA Description:

This field represents the standard market number of the CMA in which the site is located.

Please provide data for CMAs in the United States and Commonwealth of Puerto Rico.

Format of Field: Number - Integer Possible Entries: Integers 1 - 729

Column I:

Site Type

Description:

This field indicates the type of site to which the record applies using one of the possible entries listed below.

Format of Field: Text

Possible Entries:

"Macro\_Tower" An outdoor macrocell mounted on a monopole, guyed tower, or free standing tower

"Macro\_Building"

An outdoor macrocell mounted on a building

"Macro Other" An outdoor macrocell that does not fit the previous categories (silo, water tower, etc.)

"Microcell" An outdoor cell classified by the vendor as a microcell (much smaller coverage footprint than a macrocell)

"Picocell" A cell classified by the vendor as a picocell (smaller coverage footprint than a microcell)

"Outdoor DAS" An outdoor Distributed Antenna System "Indoor DAS" An indoor Distributed Antenna System

"Repeater" A cell that repeats/boosts the signal of another cell "Other" A cell that does not meet any of the above descriptions

Column J:

Site Clutter Classification

Description: This field indicates the morphology of the area that the site serves using one of the possible entries listed below.

Please provide a description of the methodology used to determine these classifications in a separate attachment.

Format of Field: Text

Possible Entries: "Urban"

"Suburban"

"Rural"

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data. Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column K:

Antenna Height -(Feet - AGL)

Description: This field indicates the antenna height above ground level in feet. Enter 9999 if not applicable.

Format of Field: Number Example Entries: 100

Column L:

Site Height (Feet -ASL)

Description: This field indicates the antenna height above sea level in feet.

Format of Field: Number Example Entries: 467

Column M: Backhaul Medium

Description: The type of technology used for backhaul at this site using one of the possible entries listed below.

Format of Field: Text Example Entries: "Fiber" "Copper"

"Hybrid Fiber Coax (HFC)"

"Fixed Wireless" "Satellite"

Column N:

Backhaul Capacity -Incoming (Gbps)

Description: Provisioned Capacity: One-way provisioned capacity of backhaul link in Gbps given capabilities of existing HW - incoming to the base station

Format of Field: Number

Column O: Backhaul Capacity -Outgoing (Gbps)

Description: Provisioned Capacity: One-way provisioned capacity of backhaul link in Gbps given capabilities of exisiting HW - outgoing from the base station

Format of Field: Number

Column P:

Latency (ms.)

Description: Service Level Agreement Latency in miliseconds (round-trip)

Format of Field: Number

Example Entries: 10 ms.

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data. Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column Q:

Max. Upgradable Backhaul Capacity -Incoming (Gbps)

Description: Format of Field: Max. Upgradable Capacity: One-way maximum capacity of backhaul link in Gbps given capabilities of upgradable HW - incoming to the base station

Format of Field: Number

Column R:

Max. Upgradable Backhaul Capacity -Outgoing (Gbps)

Description: Max. Upgradable Capacity: One-way maximum capacity of backhaul link in Gbps given capabilities of upgradable HW - outgoing from the base station

Format of Field: Number

Column S:

BBH DL Speed (Mbps)

Description: Average user dowload speed (Mbps) during the bouncing busy hour (BBH) for the site

The BBH traffic should be the five-day (weekday) average.

Format of Field: Number

Example Entries: 10 Mbps

Column T:

BBH UL Speed (Mbps)

Description: Average user upload speed (Mbps) during the bouncing busy hour (BBH) for the site

The BBH traffic should be the five-day (weekday) average.

Format of Field: Number

Example Entries: 2 Mbps

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data. Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

	Retained Site for	
Column U:	New T-Mobile	
	Description:	Will this site be retained for the New T-Mobile network?
	Format of Field:	Text
	Possible Entries:	"Y"
	1 033IDIC EITHICS.	"N"
	Remaining Lease	1 <b>"</b>
Column V:	Time (months)	
	Description:	I How many remaining months before this site current lease expires
	Bosonption.	If this site is owned by the applicants, enter 9999
	Format of Field:	Number
	Example Entries:	60 Months
	Example Entities.	OO MOHUIS
	Applicants	1
Column W:	Colocated	
	Description:	I Are applicants colocated on the same site?
	Format of Field:	Text
	Possible Entries:	" <mark>"</mark> "
	Possible Elitiles.	"N"
		N .
	600 MHz Available	]
Column X:	(MHz)	
	Description:	The total amount of spectrum (MHz) available for this band (Downlink + Uplink)
	Format of Field:	Number
	Example Entries:	10
	Example Entires.	10
	700 MHz Available	
Column Y:	(MHz)	
	Description:	The total amount of spectrum (MHz) available for this band (Downlink + Uplink)
	Format of Field:	Number
	Example Entries:	10
	Example Entiree.	
	800 MHz Available	
Column Z:	(MHz)	
	Description:	The total amount of spectrum (MHz) available for this band (Downlink + Uplink)
	Format of Field:	Number
	Example Entries:	10
	PCS Available	
Column AA	(MHz)	
	Description:	The total amount of spectrum (MHz) available for this band (Downlink + Uplink)
	Format of Field:	Number
	Example Entries:	10

For each year beginning December 2015 and extending through December 2024, provide, at the level of site ID, the following site and projected site data. Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column AB AWS Available (MHz)

Description: The total amount of spectrum (MHz) available for this band (Downlink + Uplink)

Format of Field: Number Example Entries: 10

Column AC BRS Available (MHz)

Description: The total amount of spectrum (MHz) available for this band (Downlink + Uplink)

Format of Field: Number Example Entries: 10

Column AD (MHz)

Description: The total amount of spectrum (MHz) available for this band (Downlink + Uplink)

Format of Field: Number Example Entries: 10

Column AE mmWave Available (MHz)

Description: The total amount of spectrum (MHz) available for the 24, 28, 39, and 47 GHz bands (Downlink + Uplink)

Format of Field: Number Example Entries: 100

			Number of						Site Clutter	Antenna Height -
Date	Operator	Site ID	Sectors	Latitude	Longitude	<b>County FIPS</b>	CMA	Site Type		(Feet - AGL)
										,

Site Height (Feet - ASL)	Backhaul Medium	Backhaul Capacity - Incoming (Gbps)	Backhaul Capacity - Outgoing (Gbps)	Latency (ms.)	Max. Upgradable Backhaul Capacity - Incoming (Gbps)	Max. Upgradable Backhaul Capacity - Outgoing (Gbps)	BBH DL Speed (Mbps)	BBH UL Speed (Mbps)	Site for	Remaining Lease Time (months)

Applicants Colocated	600 MHz Available (MHz)	700 MHz Available (MHz)	800 MHz Available (MHz)	PCS Available (MHz)	AWS Available (MHz)	BRS Available (MHz)	EBS Available (MHz)	mmWave Available (MHz)
	_							

For each year beginning December 2015 and extending through December 2024, provide at the level of carrier the following deployed or projected carriers da Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The term "carrier" refers to channels or portions of spectrum used in the network rather than operators or service providers.

In general, this table should contain one row for each carrier/channel deployed or projected at each sector.

Because sites and sectors can include multiple carriers/channels, the same site/sector ID may appear in multiple rows.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column A:

Date Description:

The month for which the data is being collected as of the second week of the month.

Format of Field: Text - YYYY\_MM

Possible Entries:

2015\_12 2016\_12

2017\_12

2018\_12 2019\_12

2019\_12

2021\_12

2022\_12

2023\_12

2024\_12

Column B:

Operator

Description: The operator of the site to which this data record applies. In cases where a Sprint site

and T-Mobile site share the same tower or other supporting structure, each site shall be entered separately.

Format of Field: Text
Possible Entries: "Sprint"

"T-Mobile"

"New T-Mobile"

For each year beginning December 2015 and extending through December 2024, provide at the level of carrier the following deployed or projected carriers da Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The term "carrier" refers to channels or portions of spectrum used in the network rather than operators or service providers.

In general, this table should contain one row for each carrier/channel deployed or projected at each sector.

Because sites and sectors can include multiple carriers/channels, the same site/sector ID may appear in multiple rows.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column C:

Site ID

Description: The unique site ID from the "Site Data" table for the site to which this data record applies.

Format of Field: Text

Example Entries: "AL0001", "VA0128", etc.

Column D:

Description: A unique sector ID for the sector to which this data record applies, created by adding a suffix to the site ID.

Format of Field: Text

Example Entries: Suffix examples include "A", "B", "C" or "1", "2", "3"

Column E:

Deployed **Technology** 

Sector ID

Description:

This field indicates the technology standard used by the channel/carrier described in this record.

Format of Field: Text Possible Entries:

"1X"

A carrier/channel that supports 1X CDMA "EVDO" A carrier/channel that supports EVDO

"GSM" A carrier/channel that supports GSM

"HSPA" A carrier/channel that supports HSPA or HSPA+ "LTE-R8" A LTE carrier conforming to 3GPP Release 8 "LTE-R10" A LTE carrier conforming to 3GPP Release 10 "LTE-R12" A LTE carrier conforming to 3GPP Release 12 "LTE-R13" A LTE carrier conforming to 3GPP Release 13

"LTE-LAA" A LTE Licensed Assisted Access supplemental downlink carrier

"5G-R15" A 5G-NR carrier conforming to 3GPP Release 15 "5G-R16" A 5G-NR carrier conforming to 3GPP Release 16 "5G-R17" A 5G-NR carrier conforming to 3GPP Release 17 "Fixed-Wireless" A carrier used for fixed wireless deployment

"NB-IoT" Narrowband IoT

"List Other" Specify a technology that does not conform to one of the technologies listed above

For each year beginning December 2015 and extending through December 2024, provide at the level of carrier the following deployed or projected carriers da Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The term "carrier" refers to channels or portions of spectrum used in the network rather than operators or service providers.

In general, this table should contain one row for each carrier/channel deployed or projected at each sector.

Because sites and sectors can include multiple carriers/channels, the same site/sector ID may appear in multiple rows.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

#### Column F:

#### Deployed Spectrum Band

Description: The frequency band in which the channel/carrier in this data record operates.

The 600 MHz band

Format of Field: Text

Possible Entries: "600 MHz"

"700 MHz" The 700 MHz band The 800 MHz band The PCS band The AWS band The BRS band The BRS band The EBS band

"mmWave" The 24, 28, 39, and 47 GHz mmWave bands

#### Column G:

#### DL RF Carrier Center Freq. (MHz)

Description: This field contains the unrounded center frequency in MHz of the downlink carrier described in this record.

If the carrier is TDD, then enter the center frequency of the TDD carrier

Format of Field: Number

Example Entries: 1937.5, 2142.625, etc.

#### Column H:

#### DL RF Carrier Bandwidth (MHz)

Description: This field contains the bandwidth in MHz of the downlink RF carrier described in this record

If carrier aggregation is used, each component carrier is an entry with the traffic distributed accordingly

If the carrier is TDD, then enter the entire bandwidth of the TDD carrier

Format of Field: Number

Example Entries: 1.25 Carrier = 1X

1.25 Carrier = EVDO

0.2 Carrier = GSM

5 Carrier = HSPA

5 Carrier = LTE

10 Carrier = LTE

15 Carrier = LTE 20 Carrier = LTE

60 Carrier = 5G

Carrier = Other

For each year beginning December 2015 and extending through December 2024, provide at the level of carrier the following deployed or projected carriers da Projected data shall include as separate entries plans for the standalone Applicants and those for New T-Mobile.

The term "carrier" refers to channels or portions of spectrum used in the network rather than operators or service providers.

In general, this table should contain one row for each carrier/channel deployed or projected at each sector.

Because sites and sectors can include multiple carriers/channels, the same site/sector ID may appear in multiple rows.

The site IDs in this table shall correspond to the site IDs entered in the other requested tables.

Column I:

Sector Az
Description:

Azimuth of the antenna sector orientation in degrees

Format of Field: Number

Example Entries:

0

120

Column J:

**Carrier Active** 

Description: This field is used to indicate whether a carrier is actively carrying customer traffic.

Format of Field: Te

Text

Indicates that the carrier is carrying commercial traffic generated by paying customers

"N"

Indicates that the carrier is not yet deployed, used for test or trial purposes, or turned off

Column K:

BBH DL Carried
Traffic (Gbytes/Hr)

Possible Entries:

Description:

Base to mobile carried traffic (data+voice) in Gbytes during the bouncing busy hour (BBH) for the deployed RF carrier

The BBH traffic should be the five-day (weekday) average.

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field: Number

Example Entries:

Entries: 75 Gbytes/Hr

Column L:

BBH UL Carried Traffic (Gbytes/Hr)

Description:

Mobile to Base carried traffic (data+voice) in Gbytes during the bouncing busy hour (BBH) for the deployed RF carrier

The BBH traffic should be the five-day (weekday) average.

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field: Number

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Example Entries: 20 Gbytes/Hr

Date	Operator	Site ID	Sector ID	Deployed Technology	Deployed Spectrum Band	DL RF Carrier Center Freq. (MHz)	DL RF Carrier Bandwidth (MHz)	Sector Az (deg.)	Carrier Active	BBH DL Carried Traffic (Gbytes/Hr)	BBH UL Carried Traffic (Gbytes/hr)

# "Offered Capacity" Table

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide at the level of technology/spectrum band the following offered capacity data at the county level, and for the United States, including the Commonwealth of Puerto Rico. Projected data shall include as separate entries capacity projections for the standalone Applicants and those for New T-Mobile.

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Date
Description:

The month for which the offered capacity data is being collected or projected.

as of the second week of the month.

Text - YYYY MM

Format of Field:

Possible Entries:

2018\_03 2018\_06

Column B:

Operator Description:

The operator of the site to which this data record applies. In cases where a Sprint site

and a T-Mobile site share the same tower or other supporting structure, each site shall be entered separately.

Format of Field: Text

Possible Entries: "Sprint"

"Sprint"
"T-Mobile"
"New T-Mobile"

"New I-Wob

Column C:

County FIPS

Description: This field is the 2010 five-digit FIPS code of the county in which the site is located.

Please provide data for counties and county-equivalents in the United States and Commonwealth of Puerto Rico.

Format of Field: Text

Example Entries: "01001", "51059", etc.

Column D:

CMA

Description: This field represents the standard market number of the CMA in which the site is located.

Please provide data for CMAs in the United States and Commonwealth of Puerto Rico.

Format of Field: Number - Integer Possible Entries: Integers 1 - 729

## "Offered Capacity" Table

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide at the level of technology/spectrum band the following offered capacity data at the county level, and for the United States, including the Commonwealth of Puerto Rico. Projected data shall include as separate entries capacity projections for the standalone Applicants and those for New T-Mobile.

Column E	Ξ:
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Technology

Description: This field indicates the technology standard used by the channel/carrier described in this record.

Format of Field: Text
Possible Entries: "1X"

"1X" A carrier/channel that supports 1X CDMA

"EVDO" A carrier/channel that supports EVDO
"GSM" A carrier/channel that supports GSM

"HSPA" A carrier/channel that supports HSPA or HSPA+
"LTE-R8" A LTE carrier conforming to 3GPP Release 8
"LTE-R10" A LTE carrier conforming to 3GPP Release 10
"LTE-R12" A LTE carrier conforming to 3GPP Release 12
"LTE-R13" A LTE carrier conforming to 3GPP Release 13

"LTE-LAA" A LTE Licensed Assisted Access supplemental downlink carrier

"5G-R15" A 5G-NR carrier conforming to 3GPP Release 15
"5G-R16" A 5G-NR carrier conforming to 3GPP Release 16
"5G-R17" A 5G-NR carrier conforming to 3GPP Release 17
"Fixed-Wireless" A carrier used for fixed wireless deployment

"NB-IoT" Narrowband IoT

"List Other" Specify a technology that does not conform to one of the technologies listed above

#### Column F:

#### Spectrum Band

Description: The frequency band in which the channel/carrier in this data record operates.

Format of Field: Text

Possible Entries: "600 MHz" The 600 MHz band

"700 MHz" The 700 MHz band The 800 MHz band The 800 MHz band The PCS band The AWS band The BRS band The BRS band The EBS band

"mmWave" The 24, 28, 39, and 47 GHz mmWave bands

# "Offered Capacity" Table

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide at the level of technology/spectrum band the following offered capacity data at the county level, and for the United States, including the Commonwealth of Puerto Rico. Projected data shall include as separate entries capacity projections for the standalone Applicants and those for New T-Mobile.

Column G:

DL+UL Bandwidth (MHz)

Description: This field contains the downlink and uplink combined bandwidth (MHz) in operation for the spectrum band

Format of Field: Number

Example Entries: 10 Carrier = LTE 20 Carrier = LTE

Column H:

BBH DL Offered Capacity (Gbytes/Hr)

Description: Collected or projected base station to mobile offered traffic (data+voice) in Gbytes during the bouncing busy hour (BBH) for the combine

The BBH traffic should be the five-day (weekday) average.

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field: Number

Example Entries: 75 Gbytes/Hr

Column I:

BBH UL Offered Capacity (Gbytes/Hr)

Description: Collected or projected mobile to base station offered traffic (data+voice) in Gbytes during the bouncing busy hour (BBH) for the combine

The BBH traffic should be the five-day (weekday) average.

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field: Number

Example Entries: 20 Gbytes/Hr

Column J:

Latency (ms.)

Description: Collected or projected network latency (round-trip) in miliseconds

Format of Field: Number

Example Entries: 70 ms.

							BBH DL Offered	BBH UL Offered	
						DL+UL	Capacity	Capacity	
Date	Operator	County	СМА	Technology	Spectrum Band	Bandwidth (MHz)	(Gbytes/Hr)	(Gbytes/Hr)	Latency (ms.)

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide for each county in the United States and the Commonwealth of Puerto Rico and each technology the following traffic data.

Projected data shall include as separate entries traffic projections for the standalone Applicants and those for New T-Mobile.

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Date
Description:

The month for which the traffic demand or carried traffic is being projected.

as of the second week of the month.

Format of Field:

Text - YYYY\_MM

Possible Entries:

Column B:

Operator Description:

The operator of the site to which this data record applies. In cases where an Sprint site

and T-Mobile site share the same tower or other supporting structure, each site shall be entered separately.

Format of Field: Text
Possible Entries: "Sprint"

"T-Mobile"

"New T-Mobile"

Column C:

County FIPS

Description: This field is the 2010 five-digit FIPS code of the county in which the site is located.

Please provide data for counties and county-equivalents in the United States and Commonwealth of Puerto Rico.

Format of Field: Text

Example Entries: "01001", "51059", etc.

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide for each county in the United States and the Commonwealth of Puerto Rico and each technology the following traffic data.

Projected data shall include as separate entries traffic projections for the standalone Applicants and those for New T-Mobile.

CMA Column D: Description: This field represents the standard market number of the CMA in which the site is located. Please provide data for CMAs in the United States and Commonwealth of Puerto Rico. Format of Field: Number - Integer Integers 1 - 729 Possible Entries: Technology Column E: Description: This field indicates the technology standard of this record. Format of Field: Text "1X" Possible Entries: A carrier/channel that supports 1X CDMA "EVDO" A carrier/channel that supports EVDO "GSM" A carrier/channel that supports GSM "HSPA" A carrier/channel that supports HSPA or HSPA+ "LTE-R8" A LTE carrier conforming to 3GPP Release 8 "LTE-R10" A LTE carrier conforming to 3GPP Release 10 "LTE-R12" A LTE carrier conforming to 3GPP Release 12 "LTE-R13" A LTE carrier conforming to 3GPP Release 13 "LTE-LAA" A LTE Licensed Assisted Access supplemental downlink carrier "5G-R15" A 5G-NR carrier conforming to 3GPP Release 15 "5G-R16" A 5G-NR carrier conforming to 3GPP Release 16 "5G-R17" A 5G-NR carrier conforming to 3GPP Release 17 "Fixed-Wireless" A carrier used for fixed wireless deployment "NB-IoT" Narrowband IoT "List Other" Specify a technology that does not conform to one of the technologies listed above Subscribers Column F: Description: The number of subscribers with the technology standard in the county Format of Field: Example Entries: 22,000 BBH DL Traffic Column G: **Demand** (Gbytes/Hr) Description: Collected or projected base station to mobile traffic (data+voice) demand in Gbytes/Hr during the bouncing busy hour (BBH) for the county and tech The BBH traffic should be the five-day (weekday) average. For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs Format of Field: Number Example Entries: 15.000 Gbvtes/Hr BBH UL Traffic Column H: Demand (Gbytes/Hr) Description: Collected or projected mobile to base station traffic (data+voice) demand in Gbytes/Hr during the bouncing busy hour (BBH) for the county and techr The BBH traffic should be the five-day (weekday) average.

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field:

Format of Field: Number
Example Entries: 3,000 Gbytes/Hr

For each quarter beginning 2015 Q1 and extending through 2018 Q2, and for each year thereafter extending to 2024, please provide for each county in the United States and the Commonwealth of Puerto Rico and each technology the following traffic data. Projected data shall include as separate entries traffic projections for the standalone Applicants and those for New T-Mobile.

Column I:

BBH DL Speed (Mbps)

Description:

Average user dowload speed (Mbps) during the bouncing busy hour (BBH) for the county and technology

The BBH traffic should be the five-day (weekday) average.

Format of Field:

Number

Example Entries:

5 Mbps

Column J:

BBH UL Speed (Mbps)

Description:

Average user upload speed (Mbps) during the bouncing busy hour (BBH) for the county and technology

The BBH traffic should be the five-day (weekday) average.

Format of Field: Number

Example Entries:

1 Mbps

Column K: BBH Latency (Ms)

Description:

Average latency (round-trip) in milliseconds during the bouncing busy hour (BBH) for the county and technology

The BBH traffic should be the five-day (weekday) average.

Format of Field: Number

Example Entries:

80 ms.

Column L:

Avg DL Traffic Demand (Gbytes/Hr)

Description:

Collected or projected average base station to mobile traffic (data+voice) demand in Gbytes/Hr over the course of a 24-hour day,

as a month average, including weekends, for the county and technology

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field: Number

Example Entries:

5,000 Gbytes/Hr

Column M:

Avg UL Traffic Demand (Gbvtes/Hr)

Description:

Collected or projected average mobile to base station traffic (data+voice) demand in Gbytes/Hr over the course of a 24-hour day,

as a montly average, including weekends, for the county and technology

For predominantly voice technologies such as GSM and 1X CDMA, the traffic unit shall be in Erlangs

Format of Field:

Number

Example Entries:

1,000 Gbytes/Hr

For each quarter beginning 2015\_Q1 and extending through 2018\_Q2, and for each year thereafter extending to 2024, please provide for each county in the United States and the Commonwealth of Puerto Rico and each technology the following traffic data.

Projected data shall include as separate entries traffic projections for the standalone Applicants and those for New T-Mobile.

Column N:

Avg DL Speed (Mbps)

Description: Average user dowload speed (Mbps) over the course of a 24-hour day as a montly average, including weekends,

for the county and technology

Format of Field: Number

Example Entries: 22 Mbps

Column O:

Avg UL Speed (Mbps)

Description: Average user upload speed (Mbps) over the course of a 24-hour day as a montly average, including weekends,

for the county and technology

Format of Field: Number

Example Entries: 6 Mbps

Column P: Avg Latency (Ms)

Description: Average user latency (round-trip) in milliseconds over the course of a 24-hour day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average, including weekends, for the county and technical day as a montly average weekends.

Format of Field: Number

Example Entries: 70 ms.

Column Q:

Data Blocking Rate (%)

Description: The percentage of data requests that were blocked or failed to connect as a montly average, including weekends, for the county and technology

Format of Field: Number - at least 4 decimal points

Example Entries: 0.0179

Column R:

Dropped Calls Rate

Description: The percentage of calls that were dropped as a montly average, including weekends, for the county and technology

Format of Field: Number - at least 4 decimal points

Example Entries: 0.0024

Column S:

Blocked Call Rate

Description:

The percentage of call requests that were blocked or failed to connect as a montly average, including weekends, for the county and technology

Format of Field: Number - at least 4 decimal points

Example Entries: 0.0024

Date	Operator	County	СМА	Technology		BBH UL Traffic Demand (Gbytes/Hr)	BBH DL Speed (Mbps)

BBH UL Speed (Mbps)	BBH Latency (Ms)	Avg DL Traffic Demand (Gbytes/Hr)	Avg UL Traffic Demand (Gbytes/Hr)	Avg DL Speed (Mbps)	Avg UL Speed (Mbps)	Avg Latency (Ms)	Data Blocking Rate (%)	Dropped Calls Rate (%)	Blocked Call Rate (%)